



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/910,778	07/24/2001	Hidehiko Okada	040405-0341	3552
22428	7590	10/19/2006	EXAMINER	
FOLEY AND LARDNER LLP			TAN, ALVIN H	
SUITE 500			ART UNIT	PAPER NUMBER
3000 K STREET NW				2173
WASHINGTON, DC 20007				

DATE MAILED: 10/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/910,778	OKADA, HIDEHIKO
	Examiner	Art Unit
	Alvin H. Tan	2173

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 27 July 2006.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-60 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1-60 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____	5) <input type="checkbox"/> Notice of Informal Patent Application
	6) <input type="checkbox"/> Other: _____

DETAILED ACTION

Remarks

1. Claims 1-60 have been examined and rejected. This Office action is responsive to the amendment filed on 7/27/06, which has been entered in the above identified application.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-4, 7-9, 12-16, 18-21, 24-26, 29-33, 35-38, 41-43, 45-46, 48-51, 54-56, and 58-59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Paroz et al (U.S. Patent No. 6,587,125), Bickmore et al (U.S. Patent No. 6,857,102), and Fagioli (U.S. Patent No. 6,710,790).

- 3-1. Regarding claims 1, 18, 35, and 48, Paroz teaches the claim of a remote operation system for remotely operating a device to be operated through a communication network from an operation side terminal, by disclosing a method for

remotely controlling a first computing device from at least one of a plurality of second computing devices [*column 3, lines 49-67; column 4, lines 1-2*].

Paroz teaches screen analysis means for analyzing information displayed on a screen of said device to be operated, by disclosing that static and dynamic logic of the first computing device's user interface is analyzed and used to send an equivalent user interface to the second computing device [*column 3, lines 56-62*].

Paroz teaches screen information transmission means for transmitting data of an analysis result obtained by said screen analysis means to said operation side terminal to display the data on said operation side terminal, by disclosing that a mediator sends the second computing device a set of DHTML or WML pages, which run on the second computing device's Web browser. These pages form the second user interface by which user can control the first computing device [*column 8, lines 19-23*].

Paroz teaches wherein said screen analysis means determines whether or not an active window is present on the screen of said device to be operated, and if so, said screen analysis means obtains property information of objects displayed on said active window, by disclosing that a visual status monitor monitors GUI events generated by the local program and updates the widgets running on the second computing device [*column 8, lines 66-67; column 9, lines 1-2*]. Thus, any window that is active will be analyzed and displayed.

Paroz further teaches that a web page for each layout (window) in the GUI is created [*column 6, glossary; column 8, lines 51-56*]. The web pages can be customized for properties such as communication protocol (WAP) and parameters for a specific

computing device such as a cell phone [*column 8, lines 57-65*]. This would allow the first computer to be remotely controlled by a mobile device. Paroz does not expressly teach wherein said screen information transmission means transmits only the data of the active window and the objects displayed therein, to said operation side terminal, and does not transmit any information on the screen of said device to be operated that does not correspond to the active window. Bickmore teaches providing devices with limited communications bandwidth and small displays to have access to the Internet using re-authoring and filtering systems [*column 4, lines 65-67; column 5, lines 1-4*]. As disclosed by Bickmore, cell phone display areas are too small to display web pages designed for display on color monitors [*column 1, lines 38-53*]. Bickmore discloses a solution by using web page filtering to allow a user to see only a single web page and only those portions of a page that the user is interested in. This would conserve wireless bandwidth and device memory [*column 3, lines 21-30*]. It would have been obvious to one of ordinary skill in the art at the time the invention was made, to include in the remote control system of Paroz, only viewing a single web page at a time when navigating web pages as taught by Bickmore. This would conserve wireless bandwidth and device memory.

Bickmore further teaches that the document re-authoring system can be implemented on a programmed general purpose computer as well as on a special purpose computer, a programmed microprocessor or microcontroller and peripheral integrated circuit elements, an ASIC or other integrated circuit, a digital signal processor, a hardwired electronic or logic circuit such as a discrete element circuit, a

programmable logic device such as PLD, PLA, FPGA, or PAL, or the like. In general, any device capable of implementing a finite state machine, can be used to implement the automatic document re-authoring system [*column 27, lines 26-48*]. It would have been obvious for one of ordinary skill in the art to implement the re-authoring system on the device to be operated in order to reduce the processing load on the client device and eliminate the need for an additional device and additional overhead that may be needed.

Fagioli teaches tracking the active window of a host computer in a remote computer display window. The viewport which determines which portion of the host computer display image is reproduced within the remote application display window can automatically be adjusted so as to display the portion of the host computer display image which includes the currently active host window [*column 2, lines 29-35*]. This is useful in situations where it is not possible to duplicate the entire host computer screen on the remote computer [*column 1, lines 36-44*]. This invention identifies the part of the display the user would be most interested in seeing, i.e. the active window.

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to include in the remote control system of Paroz and Bickmore, tracking the active window of a host computer as taught by Fagioli. By identifying the active window on the GUI, the remote control system of Paroz and Bickmore would be able to select that web page corresponding to the window to be displayed on a mobile device. This would allow the mobile device to display information the user would most want to see.

3-2. Regarding claims 2, 19, 39, and 49, Paroz, Bickmore, and Fagioli teach the invention substantially as claimed. Paroz further teaches the claim of the system further comprising operation execution means for causing said device to be operated to execute predetermined processing corresponding to user's operation conducted using said operation side terminal, by disclosing that a command executor receives messages from the second computing device and translates them into commands executed on the local program [*column 10, lines 12-16*].

3-3. Regarding claims 3, 20, 37, and 50, Paroz, Bickmore, and Fagioli teach the invention substantially as claimed. Paroz further teaches the claim of the system further comprising screen information conversion means for converting data of an analysis result obtained by said screen analysis means into data suitable for the transmission to said operation side terminal or for displaying on a screen of said operation side terminal, wherein said screen information transmission means transmits data of a result of conversion by said screen information conversion means to said operation side terminal to display the data on said operation side terminal, by disclosing a window analyzer that generates a DHTML page for each layout [*column 8, lines 51-65*].

3-4. Regarding claims 4, 21, 38, and 51, Paroz, Bickmore, and Fagioli teach the invention substantially as claimed. Paroz further teaches the claim wherein the system further comprising conversion rule registration means for registering and recording rules

for converting data of an analysis result obtained by said screen analysis means into data suitable for the transmission to said operation side terminal or for displaying on the screen of said operation side terminal, wherein said screen information conversion means converts data of an analysis result obtained by said screen analysis means based on the conversion rules recorded in said conversion rule registration means, by disclosing the window analyzer can generate the DHTML pages according to parameters such as target second computing device, communication type, or target browser [*column 8, lines 57-65*].

3-5. Regarding claims 7, 24, 41, and 54, Paroz, Bickmore, and Fagioli teach the invention substantially as claimed. Paroz further teaches the claim of the system wherein said device to be operated is an information processing device having a GUI and said screen analysis means detects GUI widgets displayed on an active window on the screen of said device to be operated to obtain attribute data of said GUI widgets, by disclosing analyzing the static and dynamic logic of the first computing device's user interface and creating an equivalent user interface, wherein said static and dynamic logic is substantially replicated and sending the equivalent user interface to a second computing device where it is implemented [*Paroz, column 3, lines 49-62*]. As shown in [*Paroz, figures 3, 5*], GUI widgets from a first computer are replicated on a second computer. Thus, the GUI widgets displayed on any active window would be detected and replicated.

3-6. Regarding claims 8, 25, 42, and 55, Paroz, Bickmore, and Fagioli teach the invention substantially as claimed. Paroz further teaches the claim of the system wherein the attribute data of said GUI widgets includes each of a kind of said GUI widgets, a name of said GUI widgets and a location of aid GUI widgets in the screen, by disclosing that the DHTML code that the window analyzer creates for a widget consists of the static attributes to display, handlers for events received from the local programs, and handlers for events occurring on the second computing device [*Paroz, column 9, lines 22-26; figure 3*]. [*Paroz, figure 3*] shows the attribute data for recreating GUI widgets, which includes the kind and name of the GUI widget. Attribute data also includes the position and size of the GUI widget [*Paroz, column 10, lines 10-11*].

3-7. Regarding claims 9, 26, 43, and 56, Paroz, Bickmore, and Fagioli teach the invention substantially as claimed. Paroz further teaches the system wherein said conversion rule registration means has registration of rules for converting data of an analysis result obtained by said screen analysis means into a web page that can be displayed by a web browser and said screen conversion means converts data of an analysis result obtained by said screen analysis means into a web page based on said rules, by disclosing that the window analyzer generates a DHTML for each layout according to certain parameters [*column 8, lines 51-65*].

Paroz teaches when a GUI widget is selected, data identifying the GUI widget in question is transmitted to said operation execution means, by disclosing [*figure 6; column 10, lines 26-36*].

Bickmore teaches the use of hyper-links to navigate through pages of the Internet, by disclosing [*figure 1*]. Since the remote computing device can be a mobile device, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the hyper-link system of Bickmore to navigate through the HTML pages of Paroz. This would conserve wireless bandwidth and memory.

3-8. Regarding claims 12 and 29, Paroz, Bickmore, and Fagioli teach the invention substantially as claimed. Paroz further teaches wherein data of an analysis result obtained by said screen analysis means is data of an XML format, by disclosing that a list of events, in XML format, made on the local program are processed by the DHTML and sent to the mediator [*column 10, lines 45-51*].

3-9. Regarding claims 13 and 30, Paroz, Bickmore, and Fagioli teach the invention substantially as claimed. Paroz further teaches the system wherein said operation side terminal is a portable communication terminal having a character data transmission and reception function, by disclosing that the second computing device may be a mobile phone [*column 3, lines 29-34*].

3-10. Regarding claims 14 and 31, Paroz, Bickmore, and Fagioli teach the invention substantially as claimed. Paroz further teaches the system wherein said communication network is the Internet [*column 7, lines 32-38*].

3-11. Regarding claims 15, 32, 45, and 58, Paroz, Bickmore, and Fagioli teach the invention substantially as claimed. Paroz further teaches the claim of the system wherein said screen analysis means, when moving picture or still picture is displayed on the screen of said device to be operated along with non-picture information, detects the display in question to extract picture data of the display in question, and said screen information transmission means transmits said picture data extracted by said screen analysis means to said operation side terminal to display the data on said operation side terminal, by disclosing that the visual status monitor may obtain embedded images in the GUI, which are transmitted to the mediator for display on the second computing device [*column 9, lines 45-67; column 10, lines 1-11*]. Additionally, Paroz teaches analyzing the static and dynamic logic of the first computing device's user interface and creating an equivalent user interface, wherein said static and dynamic logic is substantially replicated and sending the equivalent user interface to a second computing device where it is implemented [*Paroz, column 3, lines 49-62*]. Thus, in addition to detecting images in the GUI, the static and dynamic logic needed to recreate the user interface, including non-picture information needed to replicate the position/size of the images as well as the logic to recreate operations on those images, is analyzed in the screen analysis means.

Screen analysis is performed only on objects shown on the first computing device's user interface. If no moving or still images were shown on the first computing device's user interface, screen analysis would not perform any picture data extraction, including analyzing the logic of those images, because there would be none to perform.

3-12. Regarding claims 16, 33, 46, and 59, Paroz, Bickmore, and Fagioli teach the invention substantially as claimed. Paroz further teaches the claim of the system wherein said screen analysis means, when moving picture or still picture is displayed on the screen of said device to be operated along with non-picture information, detects the display in question to extract picture data of the display in question, and screen information conversion means converts said picture data extracted by said screen analysis means into data suitable for the transmission to said operation side terminal or for displaying on the screen of said operation side terminal, by disclosing that the visual status monitor may obtain embedded images in the GUI, which are transmitted to the mediator for display on the second computing device [*column 9, lines 45-67; column 10, lines 1-11*]. The DHTML pages may be customized according to parameters such as target second computing device [*column 8, lines 51-65*]. Additionally, Paroz teaches analyzing the static and dynamic logic of the first computing device's user interface and creating an equivalent user interface, wherein said static and dynamic logic is substantially replicated and sending the equivalent user interface to a second computing device where it is implemented [*Paroz, column 3, lines 49-62*]. Thus, in addition to detecting images in the GUI, the static and dynamic logic needed to recreate the user interface, including non-picture information needed to replicate the position/size of the images as well as the logic to recreate operations on those images, is analyzed in the screen analysis means. Screen analysis is performed only on objects shown on the first computing device's user interface.

Screen analysis is performed only on objects shown on the first computing device's user interface. If no moving or still images were shown on the first computing device's user interface, screen analysis would not perform any picture data extraction, including analyzing the logic of those images, because there would be none to perform.

4. Claims 5, 17, 22, 34, 39, 47, 52, and 60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Paroz et al (U.S. Patent No. 6,587,125), Bickmore et al (U.S. Patent No. 6,857,102), Fagioli (U.S. Patent No. 6,710,790), and Martin, Jr. et al (US Patent No 6,610,105).

4-1. Regarding claims 5, 22, 39, and 52, Paroz, Bickmore, and Fagioli teach the invention substantially as claimed. Paroz, Bickmore, and Fagioli do not expressly teach the system further comprising device characteristic detection means for detecting device characteristics of said operation side terminal, wherein said screen information conversion means converts data of an analysis result obtained by said screen analysis means based on device characteristics detected by said device characteristic detection means and conversion rules recorded in conversion rule registration means.

Martin, Jr. teaches a remote access system, similar to that of Paroz, Bickmore, and Fagioli wherein Martin, Jr. further teaches techniques to facilitate participation of a mobile device in accessing resources over a data network [*column 2, lines 34-36*]. Martin, Jr. teaches receiving a request for a web page from a requestor, determining device characteristics of a mobile device used by the requestor, retrieving menu

information based on the device characteristics of the mobile device used by the requester, producing the navigation aid based on the menu information, the navigation aid being in a format suitable for the mobile device, and forwarding the web page including the navigation aid to the requester [column 2, lines 49-56].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to include in the remote control system of Paroz, Bickmore, and Fagioli, the technique taught by Martin, Jr. for producing a navigation aid on a web page for a mobile device by detecting device characteristics and converting the navigation aid into a format suitable for the mobile device. This would allow many different mobile devices with different operating environments to access the GUI web page representing the GUI of a computer, and thus, provide remote access to a computer using the mobile device, as suggested by Martin, Jr.

4-2. Regarding claims 17, 34, 47, 60, Paroz, Bickmore, and Fagioli teach the invention substantially as claimed. Paroz, Bickmore, and Fagioli do not expressly teach the system wherein device characteristics of said operation side terminal detected by said device characteristic detection means include at least one of an inherent ID of said operation side terminal, a kind of machine, a processing rate, a communication rate, communication costs per unit volume of data, communication costs per unit time, a data format that can be displayed on a screen, a playable sound data format, executable program and script formats, a volume of data receivable at one time, a color that can be displayed, a character font that can be displayed, a screen resolution, a physical length

of a screen in a vertical direction and a lateral direction and the number of characters that can be displayed within one screen in the vertical direction and lateral direction

Martin, Jr. teaches that the device information obtained includes one or more of device characteristics, rendering context for the menu, and user identify and/or browser type utilized by the requesting device [*column 11, lines 5-9*].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to include in the remote access system of Paroz, Bickmore, and Fagioli, device characteristics of the device taught by Martin, Jr. in order to be able to determine what kind of device is being used to remotely access a computer so as to more accurately produce the interface for remote access, as suggested by Martin, Jr.

5. Claims 6, 23, 40, and 53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Paroz et al (U.S. Patent No. 6,587,125), Bickmore et al (U.S. Patent No. 6,857,102), Fagioli (U.S. Patent No. 6,710,790), and Suzuki et al (U.S. Patent No. 6,003,067).

5-1. Regarding claims 6, 23, 40, and 53, Paroz, Bickmore, and Fagioli teach the invention substantially as claimed. Paroz teaches the claim of the system further comprising screen change detection means for detecting a change in display of the screen of said device to be operated, wherein at a time when a change occurred in display of the screen is completed, said screen analysis means analyzes the current screen of said device to be operated, by disclosing a visual status monitor that monitors

GUI events generated by the local program and updates the widgets running on the second computing device [*column 8, lines 66-67; column 9, lines 1-2*]. Paroz further teaches that DHTML pages can be customized for properties such as refresh rate [*column 8, lines 57-60*].

Paroz, Bickmore, and Fagioli do not expressly teach wherein said screen change detection means determines that the change that occurred in the display of the screen is completed when no screen change is detected in the display of the screen for more than a predetermined time period. Suzuki teaches a data transmission processing system for reducing the transmission data amount and quickly conducting the displaying operation of screen data by transmitting from a second information processing apparatus to a first information processing apparatus the screen data [*column 2, lines 21-29*]. The invention of Suzuki detects whether or not there is a change in the screen after a predetermined period of time and if so, transmits the changed screen data to the first information processing apparatus [*column 10, lines 1-53*]. It would have been obvious to one of ordinary skill in the art at the time the invention was made, to include in the remote control system of Paroz, Bickmore, and Fagioli, detecting that the change that occurred in the display of the screen is completed when no screen change is detected in the display of the screen for more than a predetermined time period, as taught by Suzuki, and performing the function of analyzing the screen subsequently. This would ensure that a change in the screen of the device to be operated is noticed so that the display on the operation side terminal can be updated accordingly.

6. Claims 10-11, 27-28, 44, and 57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Paroz et al (U.S. Patent No. 6,587,125), Bickmore et al (U.S. Patent No. 6,857,102), Fagioli (U.S. Patent No. 6,710,790), and Rosenblatt et al (US Patent No 6,263,363).

6-1. Regarding claims 10, 27, 44, and 57, Paroz, Bickmore, and Fagioli teach the invention substantially as claimed. Paroz, Bickmore, and Fagioli do not expressly teach the system wherein said conversion rule registration means has registration of rules for converting data of an analysis result obtained by said screen analysis means into a text of electronic mail. Rosenblatt teaches a similar invention for remotely accessing a computer over the Internet. Rosenblatt teaches that changes made to the virtual copy (the device to be operated) during a session remotely controlled from the remote access client computer are sent to the home computer to synchronize the home computer with its virtual copy. The process can be undertaken by several methods according to user selection, including emailing the changes to the home computer (or elsewhere as designated by the user), selecting where the updates will be stored on the home computer, and selecting how file conflicts are handled [*column 9, lines 42-52*].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to include in the remote access system of Paroz, Bickmore, and Fagioli, e-mailing the changes made to the device to be operated as taught by Rosenblatt. This would allow the user to keep track of what operations have been performed remotely.

6-2. Regarding claims 11 and 28, Paroz, Bickmore, Fagioli, and Rosenblatt teach the invention substantially as claimed. Rosenblatt further teaches the system wherein operation execution means receives electronic mail including information of user's operation conducted using said operation side terminal, analyzes the received electronic mail to identify the user's operation, and executes the operation in question, by disclosing that changes made to the virtual copy (the device to be operated) during a session remotely controlled from the remote access client computer are sent to the home computer to synchronize the home computer with its virtual copy. The process can be undertaken by several methods according to user selection, including emailing the changes to the home computer (or elsewhere as designated by the user), selecting where the updates will be stored on the home computer, and selecting how file conflicts are handled [*column 9, lines 42-52*]. In order to synchronize the home computer with its virtual copy, the home computer must identify the changes and perform all the operations carried out by the remote computer, which are listed in the e-mail.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to include in the remote access system of Paroz, Bickmore, and Fagioli, the method of using e-mail to communicate the commands and changes made to the device to be operated as taught by Rosenblatt. This would allow a user to update a remote device by using standard e-mail protocols.

Response to Arguments

7. The Examiner acknowledges the Applicants' amendments to claims 6-8, 15, 16, 23-25, 40-42, and 53-55. Regarding claims 1, 18, 35, and 48, the Applicant alleges that Bickmore et al (U.S. Patent No. 6,857,102), as described in the previous Office action, does not explicitly teach that the screen information transmission means is performed by the device to be operated. Examiner notes that the claim language "screen transmission means, provided on said device to be operated" as recited in claim 1 and "screen information transmission processing, provided on said device to be operated" as recited in claim 48 may be broadly interpreted as screen transmission means and processing performed based on data from said device to be operated, and not necessarily screen transmission means and processing located or executed on said device to be operated. Nevertheless, Bickmore does teach screen transmission means are provided at the device to be operated, by disclosing [*figure 6*], which shows an embodiment where the automatic document re-authoring systems and methods and the automatic document filtering systems and methods are implemented [*column 13, lines 34-38*]. An operation side terminal [*510, figure 6*] is connected to a host node [*570, figure 6*], or the device to be operated. The operation side terminal requests a document from a host node, wherein the host node may retrieve the document locally [*column 14, lines 25-45*]. Once the host node retrieves the document, an HTTP proxy server executing on the host node re-authors the requested document and transmits it to the operation side terminal [*column 14, lines 46-64*]. As shown in [*figure 7*], the host node contains screen information transmission means [*column 15, lines 25-30*]. Consequently, and given the broadest, most reasonable interpretation of their claim

language, Paroz et al (U.S. Patent No. 6,587,125), Bickmore, and Fagioli (U.S. Patent No. 6,710,790) are still considered to anticipate claims 1, 18, 35, and 48.

Regarding claims 6, 23, 40, and 53, Applicant alleges that Paroz, Bickmore, Fagioli, and Suzuki et al (U.S. Patent No. 6,003,067), as described in the previous Office action, does not explicitly teach screen change detection means, provided on said device to be operated, as has been amended. Contrary to Applicant's arguments, the fact that the screen change detection process of Suzuki is performed at a server and not at a device to be operated is not relevant because the Examiner is not combining the whole structure of Suzuki with that of Paroz, Bickmore, and Fagioli, only the part of the invention of detecting whether or not there is a change in the screen after a predetermined period of time and if so, transmitting the changed screen data to the first information processing apparatus [*Suzuki, column 10, lines 1-53*]. Paroz, Bickmore, and Fagioli already teach screen change detection means that are provided on said device to be operated, by disclosing a visual status monitor that monitors GUI events generated by the local program and updates the widgets running on the second computing device [*Paroz, column 8, lines 66-67; column 9, lines 1-2*]. Both the inventions of Paroz, Bickmore, and Fagioli and Suzuki include detecting a change in display of a screen. Thus, the screen change detection means of Paroz, Bickmore, and Fagioli is improved by detecting that the change that occurred in the display of the screen is completed when no screen change is detected in the display of the screen for more than a predetermined time period, as taught by Suzuki, and performing the function of analyzing the screen subsequently. This would ensure that a change in the

screen of the device to be operated is noticed so that the display on the operation side terminal can be updated accordingly.

Applicant alleges that Paroz, Bickmore, Fagioli, and Suzuki, does not explicitly teach a means for detecting an operation object in an active window. Contrary to Applicant's arguments, nowhere in the claims recite detecting an operation object in an active window and therefore, such a limitation need not be shown in the prior art.

Regarding claims 8, 25, 42, and 55, Applicant alleges that Paroz, Bickmore, and Fagioli, as described in the previous Office action, does not explicitly teach the attribute data of said GUI widgets includes each of a kind of said GUI widgets, a name of said GUI widgets, and a location of said GUI widgets in the screen, as has been amended. Contrary to Applicant's arguments, Paroz, Bickmore, and Fagioli teaches that the DHTML code that the window analyzer creates for a widget consists of the static attributes to display, handlers for events received from the local programs, and handlers for events occurring on the second computing device [*column 9, lines 22-26; figure 3*]. [*Figure 3*] shows the attribute data for recreating GUI widgets, which includes the kind and name of the GUI widget. Attribute data also includes the position and size of the GUI widget [*column 10, lines 10-11*]. Consequently, Paroz, Bickmore, and Fagioli are still considered to anticipate claims 8, 25, 42, and 55.

Regarding claims 7, 24, 41, and 54, Applicant alleges that Paroz, Bickmore, and Fagioli, as described in the previous Office action, does not explicitly teach said screen analysis means detects GUI widgets displayed on an active window provided on the screen of said device to be operated to obtain attribute data of said GUI widgets, as has

been amended. Contrary to Applicant's arguments, Paroz teaches analyzing the static and dynamic logic of the first computing device's user interface and creating an equivalent user interface, wherein said static and dynamic logic is substantially replicated and sending the equivalent user interface to a second computing device where it is implemented [*Paroz, column 3, lines 49-62*]. As shown in [*figures 3, 5*], GUI widgets from a first computer are replicated on a second computer. Thus, the GUI widgets displayed on any active window would be detected and replicated.

Regarding claims 15 and 16, Applicant alleges that Paroz, Bickmore, and Fagioli, as described in the previous Office action, does not explicitly teach said screen analysis means, when moving picture or still picture is displayed on the screen of said device to be operated along with non-picture information, detects the display in question to extract picture data of the display in question and wherein said screen analysis means does not perform any picture data extraction and ignores the non-picture information when moving picture or still picture is not displayed on the screen of said device to be operated, as has been amended. Examiner notes that non-picture information may be broadly interpreted as any type of information that is not the actual picture being displayed. Contrary to Applicant's arguments, Paroz teaches that the visual status monitor may obtain embedded images in the GUI, which are transmitted to the mediator for display on the second computing device [*column 9, lines 45-67; column 10, lines 1-11*]. Additionally, Paroz teaches analyzing the static and dynamic logic of the first computing device's user interface and creating an equivalent user interface, wherein said static and dynamic logic is substantially replicated and sending the equivalent user

interface to a second computing device where it is implemented [*Paroz, column 3, lines 49-62*]. Thus, in addition to detecting images in the GUI, the static and dynamic logic needed to recreate the user interface, including non-picture information needed to replicate the position/size of the images as well as the logic to recreate operations on those images, is analyzed in the screen analysis means. Screen analysis is performed only on objects shown on the first computing device's user interface. If no moving or still images were shown on the first computing device's user interface, screen analysis would not perform any picture data extraction, including analyzing the logic of those images, because there would be none to perform.

Applicant states that dependent claims 2-17, 19-34, 36-47, and 49-60 recite all the limitations of the independent claims, and thus, are allowable in view of the remarks set forth regarding independently amended claims 1, 18, 35, and 48. However, as discussed above, Paroz, Bickmore, and Fagioli are considered to teach claims 1, 18, 35, and 48, and consequently, claims 2-17, 19-34, 36-47, and 49-60 are rejected.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alvin H. Tan whose telephone number is 571-272-8595. The examiner can normally be reached on Mon-Thu 9:30-7 and alternating Fridays 9:30-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kristine Kincaid can be reached on 571-272-4063. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AHT
Assistant Examiner
Art Unit 2173

TADESSE HAILU
Patent Examiner
